

## Claims

What is claimed is:

1. An electronic structure, comprising:
  - 2 a substrate;
  - 3 a semiconductor device electrically coupled to the substrate;
  - 4 a stiffener ring adhesively coupled to the substrate, wherein the stiffener ring surrounds
  - 5 the semiconductor; and
  - 6 a cover plate on a top surface of the semiconductor and on a top surface of the stiffener
  - 7 ring, wherein the cover plate is adhesively coupled to a portion of the top surface of the
  - 8 semiconductor by a first adhesive, wherein the cover plate is adhesively coupled to a portion of a
  - 9 top surface of the stiffener ring by a second adhesive, and wherein a modulus of the first adhesive
  - 10 is less than a modulus of a second adhesive.
1. 2. The electronic structure of claim 1, wherein the first adhesive has a modulus less than about
- 2 500 psi.
1. 3. The electronic structure of claim 1, further comprising a heat sink, wherein the heat sink is
- 2 coupled by a third adhesive to a portion of a top surface of the cover plate.
1. 4. The electronic structure of claim 3, wherein a modulus of the third adhesive is less than the
- 2 modulus of the second adhesive.

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1       5. The electronic structure of claim 4, wherein the modulus of the third adhesive is about equal to  
2       the modulus of the first adhesive.

1       6. The electronic structure of claim 4, wherein the modulus of the third adhesive is not equal to  
2       the modulus of the first adhesive.

1       7. The electronic structure of claim 1, wherein the substrate has a compliance range of  $10^4$  psi to  
2        $3 \times 10^6$  psi.

1       8. The electronic structure of claim 1, wherein the semiconductor device includes a  
2       semiconductor chip.

1       9. The electronic structure of claim 1, wherein the substrate is selected from the group consisting  
2       of a chip carrier and a printed circuit board.

1       10. The electronic structure of claim 1, wherein the substrate comprises an organic material.

1       11. An electronic structure, comprising:  
2           a substrate;  
3           a semiconductor electrically coupled to the substrate; and  
4           a cover plate on a top surface of the semiconductor, wherein the cover plate is adhesively  
5       coupled to a portion of the top surface of the semiconductor by a first adhesive, and wherein the  
6       first adhesive has a modulus less than about 500 psi.

1       12. A method for forming an electronic structure, comprising:  
2              providing a semiconductor device;  
3              electrically coupling the semiconductor device to a substrate;  
4              adhesively coupling a stiffener ring to the substrate, wherein the stiffener ring surrounds  
5          the semiconductor device, and  
6              adhesively coupling a cover plate to a portion of a top surface of the semiconductor  
7          device with a first adhesive and to a portion of a top surface of the stiffener ring with a second  
8          adhesive, wherein a modulus of the first adhesive is less than a modulus of a second adhesive.

1       13. The method of claim 12, wherein the first adhesive has a modulus less than about 500 psi.

1       14. The method of claim 12, further comprising a heat sink, wherein the heat sink is coupled by a  
2          third adhesive to a portion of a top surface of the cover plate.

1       15. The method of claim 14, wherein a modulus of the third adhesive is less than the modulus of  
2          the second adhesive, wherein the third adhesive has a lower modulus than a second adhesive.

1       16. The method of claim 14, wherein the modulus of the third adhesive is about equal to the  
2          modulus of the first adhesive.

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- 1      17. The method of claim 12, wherein the substrate has a compliance range of  $10^4$  psi to  $3 \times 10^6$  psi.
- 1      18. The method of claim 12, wherein the semiconductor device includes a semiconductor chip.
- 1      19. The method of claim 12, wherein the substrate is selected from a group consisting of a chip  
2      carrier and a printed circuit board.
- 1      20. The method of claim 12, wherein the substrate comprises an organic material.